

1/25

FIGURE 1A

```

1  cagcaagaag ttgatccgtg ggtggaatcc aggtctccag agtgtaaagt aagcctgaca
61  catttagaga ttatgaatag ttaagtttga ataggtcaga gtagtcaac agtttggctg
121 ggctagagaa gtatttagaa aaatagtagg aaatcagggt aaagaaataa ataggagaca
181 gattacaggg tgcttttaaat aatataagaa taataagaat ttggattttt agccatactt
241 ttgaaattaa gcaataaaat cccttttttaa ataaaaatct tatatatgag acaccaatat
301 gcaaaacaaa ttaaaggag gtggtttctc caattgaagc tgttccctct ccctgccctc
361 agcctctcag gagaaaagct ggaaaaccct aaagagaaag tttgacaagt gtgaacagtc
421 atgctgcaga catgtgtggg gcaaggtagt gatacagcaa gtggcacaca gtccaggtag
481 agggatgtac gctgaaggca gaaagcacag agaggggacc accaggctgc cagtgggaag
541 ggaaggcaaa gatgctggac acaaaaagaa tcagaaagag aggggagtag ttcaaagact
601 cacttcagc ggccgtggaa ggacagtgc atcacaaaa tagtgaaagg caaaggagga
661 ggctgccttt gtaaggcagt gatgtgcttt tatgtgtttc tgtcatctag acatttgtgc
721 tgcactatgc tgtagtcaaa gggatagaaa gtagcacttt tttctctatc agttttcttc
781 tgatctcaaa tagatgaaac aaagtctact gcaagaggca gaaaaagctg aacttcgtta
841 catttaaaat tgtaagtgcc tgagagtctg tctgaaagcc caatgagaag aaaatacagg
901 attcctaattg ccccttcca gaaaggaaaa agaaccattt ccatttctgc aatatttctg
961 ttcccttgca caatccggat aattagcaca ttatttttta tctttaaaaa ctctgcccc
1021 cactgtggag ttaagtacaa tggaaatgat catttcacgt ataattattt taaaacccaa
1081 ggctcttctt gtgcttttaa aaaataaacg atgagtgaag cgtgttgaat atgtgcctct
1141 gagtacagga attccaaagc ggattatttg gattgcggat cagtgcagct ttttggcaag
1201 cctagtggga tgaggacagt ctccctttcc tctgcgtttg tgaaccttgt gatgaaagtg
1261 ctcccgccct tttctgagaa cagaaagcct gactcaggca ggcagctgct gctcttaaaa
1321 cagctcgagc cggcagcctc ccctgctggg gtgagcgcca ccgcagagat gaagctgaag
1381 ctgtcgaaat ggtgctggct gagctccgct gtccctcgcg cttatggctt tttggtcggtg
1441 gccacaatg agacggagga aattaaagat gaagcagcca aggcgcctg cccggtgaga
1501 ctagaaagca gagggaatg cgaagaggta ggcgggtgtc cctaccaggt gaacctgccc
1561 cccttgactc ttcagctccc caagcagttt ggcaggattg agggaggtgt caaagaggtc
1621 cagaacctca aggaaattgt gaacagcctg aagaagactt gccaaagactg cagactgcag
1681 gctgacgaca accgagaccc aggcagggaat ggactgctgt caccgggcac aggagccccg
1741 ggagaagctg atgacagcag agttagagaa ttggagaacg aggttaacaa gctgtcctct
1801 gacctgaaga atgccaagga agagatcgac gggcttcagg gtcgcctgga gaagctgagc
1861 cttgtaaata tgaacaacat agaaaattac gttgataaca aggtggcaaa cctaagcttt
1921 gctgtcaata gtttggatgg caaatgttca tcgcgggtgt ccagtcaaga acaaatacag
1981 tcacgtccgg gtatgtataa taatgccttc ttatcatttg ttccggaatg ttttatagct
2041 agacaatacc cataaacatt aacctgggaa aataaaggac agattaagta aattaagcct
2101 tttatgcata aaggtagtac aggcaaaact actgtctttg cagatgtgac cacagaaagg
2161 ttagaagacc taaggaacca aaaaaaatca taaagagttc tgtctccatt agaaagcact
2221 ttgaatttca aagaccttat gtgctgacgc cagaactaca cacaaacaga gtggagaagg
2281 caaatttctt aacgtgtcat tgtgtttaac atttatctct tccctggaaat gctgaaaaac
2341 aatggagata aggcagtgtt tgtggttgta ctctggaaat caggttttgg tttttttttt
2401 ttttggggcc gggtgattgc tgcttggtgt gcaacaagag acctttgaaa gatttttagca
2461 agtaatctgt acttcataat cccaaatatc tcgtggaaag caaagacttt atagatgaaa
2521 taaaagcagc ttgtaggctt cacatgtgtg cacaactgtt tgctttgaga tctagtggca
2581 caaaagcatt ttaaggggag ttttgatatg ccactaaagt taggaatatg ttcttattcc
2641 ttcctctctt tcaactagaat tcaagcatgt gacaatagaa cccatcttcc ccatccagat
2701 tatctgaatt aacttttagta aataaattaa ctttagtaaa aaaagatcac aaacctaaact
2761 gtctactctg cacaagaact gctggctgtg gcactgggtc tcccaaacc tggttttccc
2821 cacatgagtt cctagggcc tttctgctta ttgtaagtgt gaggttaaag gatatggcac
2881 tgcattagaa tttctgctta ttgtacacac ttatgcgtgc tccattccca gggaatctag
2941 gatggtattc atttggaaca agtacctacc ttcattggacc actgttggtt ttactcccag cagcctgtat
3001 gagtgaaggg agttgggagt ttcattggacc ggttcaagtc aggtaacaca cctgggtgct
3061 ctaaggggtac cctgcacatt gcaaggcaga ggttcaagtc aggtaacaca cctgggtgct
3121 tgtagacgg gatgcttcat ggcagtttgt aatgacaaga acaagagtct actgcctgtt
3181 tttctactaa gattggggca agtatctgaa tgtttgagtt ctaaataatac atgaatagat
3241 taagtgtggc tcatagtgtc ttctaccaa ctgcttttat ctgacacct tttttataga
3301 aattatctgg gagtaaatgt ctgtatttga ttccctgcaga accacagtag ctgattatta
3361 tacttattct gaatacaagt acgtgtggtt tccttctaga atccaaacgt gaaacactaa

```

BEST AVAILABLE COPY

2/25

FIGURE 1A (CONT'D)

```

3421 atatttttctt ggataataaaa ttcagaagaa gaatactggt atataattaa attttttaac
3481 ttgaacttctt ttaattgtca agcaagtaaa ataaatggaa atgttgatca gtgctgtact
3541 ttagaattttt aatgtatcaa ttggaaaaat cctataaaat gtcctcaaag tggaggctat
3601 tagcatctctt aggtcaaagg aaacagaagc atgtgtttcc tctgcctgca tggaaatgcag
3661 ttccggggaga agtggaatca cctgaccttc agggccaagg gatacagtgc ttacaaggac
3721 aaggtttgca gcccaaccaga tctgagtttg tgcctgggt ctgccactga aagtttctgt
3781 gaagttggga aagccagtga tctcctttga gcctaaatat tctttctcac cagcagaatg
3841 gtaataatat ctacgtcata cagttcacgt gcagaccaag tgtgaaaatg ttatcaagtc
3901 attggccaaa tgcctagagc aactggggag cccttatgaa atattacgga attattgaga
3961 ctattctctt tatttcttgc tggatgatgt tgctgttcac attatcaata ttatcaccaa
4021 ccaagaaagt gttggagagc ttggtctgct ttataacacc aggttcttgt tctgaggcct
4081 ttaacaagca tttgccaaat aggttcaagt acgttttagca gagccagggt tcattatcac
4141 cattgactga gttatcaaac tgcttttcta catctaaaga attctttcaa tgcatagttt
4201 ttattaaaca aatccaatgc ctttattttt tttttcactc cttcagttca acatcttata
4261 tataaagatt gctctgaata ctacacaata ggcaaaaagga gcagtggagt ctacagagtt
4321 acaccggatc ccaaaaacag tagctttgaa gtttactgtg acatggagac catgggggga
4381 ggctggacag tgctgcaggc acgtcttgat ggaagcacca acttcaccag aacatggcga
4441 gactacaaag ttggcttttg aaacctcaga agagaatttt ggttggggaa tgataaaatt
4501 catcttctga ctaagagtaa ggatgatgatt ctaagaatag atcttgagga ctttaatggt
4561 atcaagctct atgccttgta tgatcacttt tatgtggcca acgagtttct caaataccgt
4621 ctacacattg gtaactataa cggcacgtct ggagatgcct tgcgtttcag taaacattac
4681 aacctgaca tgaagtattt caccacccca gatagagaca acgatcgata tccctctggg
4741 aactgtgggc tctactacag ctcgggttg tggtttgatg cttgtctttc tgcaaactta
4801 aatggcaaat attataacca aaaatacaga ggtgttcgaa atgggatttt ctggggcacc
4861 tggcctggta taagtgaggc acaacctggt ggctacaggt cctctttcaa agaagccaaa
4921 atgatgatca gacccaagta ctttaagcca taaatcacta atgcttattc ctctgggtat
4981 tcatttccta atagggcaat taattccttc agcacttttg aatgtgtttc atactcctct
5041 tcatggctta aaacttatct ctgagcaatg gggtcttatg ctatacagga tttgaaataa
5101 agctgaaaaa tatgccttgt aaagaagtcc tttgttgctg ttacactggt atccaaataa
5161 acacttgcaa gcaaggggaa tattgagaat ttactcactc gaactaaaaa taattgctta
5221 cttctatttg aaaagttttt attgctcatc tgtattttgc ctgagacttg aagacatctg
5281 ttcagcaggc taaattttac acgagtaatc tgtattttgc ctgagacttg tctctaaata
5341 aaggcatatt actcttttca ggcctaaat aactattggg tatttatattg tctctaaata
5401 ccctatttct cattctgaga taaacttact ctatttatgg catttacagc atttttagttc
5461 ccaagcaaag ggaaatatgt ataattaaac ctgttcatgt actaatcctg aaatgctaaa
5521 ttttatttta aatattttta aatgcgacaa tatactgtcc ctcctaaaag cattcagaaa
5581 attaatttta ccttaaagac catggtttta aggttaattc ttcatagttt ataattcctc
5641 agatgtttta tgataaaaac tggtttaaca taaaaaccgt cttcctttgc tcttttgcac
5701 aatagtttta aatttaagac tgctcactac tgtatgagac tactggtaga ttttctttgg
5761 taggtatggg tggggaatga agcacttatt tatagactat aacactctga aggccaatgt
5821 tatatccaaa gcaataatat cattaagtga ttcatttcat tcaaagctaa gttgtatagg
5881 acaaagagat aaatctattc acaaaaagca tatgaatttt gaaatatata cagaacaatg
5941 gttcaaacat tatatacttt aaccctactg gtgtattttc tatttttcta tcagaagatt
6001 caaatatagt tttttttaac aaaacaaaaa tagaatttta caattcatta attttagaat
6061 gcaagtatta tattttaaaag attataaaaa ttgttaaatt gcatcattgt aaaaaagggg
6121 tcacttctaga gagaacagca gtattctact gcatgttaaa aaaaaaaa tgctcttgga
6181 gttcccgta tggttcagcg gttaacaaac ctgactagta tccatgggga tgcaggtttg
6241 atccctggcc tcaactcagt gggttaaggat tgggtgttgc catgagctgt ggtataggtc
6301 acagacgtgg cttggatctg gcattgctgt ggctgtggcc ggcagctata gctccaattg
6361 gacccctacc ctgcaaatgt gccacagggt caacccaaaa aaaaaaaaaa aaaaaaaaaa
6421 aaacagctct agagtaaaat ctgaaagaat acactgtact atgtgagtca tacaataaca
6481 ttcaatcttt aatttctagt gtctgtttct actaacaag agtttttaag attttcacaa
6541 aaatgcagct ttccccatta tttgaaaaga ttaagggaag gagtagcttt agggagaag
6601 ctaacttttt gaataattgcc gtatattaaa aagtctaata aagaagaagc aagatactct
6661 tttaaaaata tataacatgc aaagttttca ggcaaacatg atgaaaacta tgtttttatg
6721 aatactatta aaatactgaa gcaagagaaa tgcaaataga attaagtgat gacccaaatg

```

3/25

FIGURE 1A (CONT'D)

```
6781 taaaataacca ttgtagactt caaaggcttc atttctactt aataggatac caaatgtaaa
6841 tgttgtaact aatttattct atatttctct cttttttctt gtaaaacaag actaagaaga
6901 ttttgatatt atataatgta ttccagacaa gggatatttc acttactata tataactata
6961 tatatatata taagtttagg tatatttctg tgatcaaaag tgcactcctt aaaaaatata
7021 gttctaaaga aaaatagctc atataagcga gtgtcccctg atttagtgag aaacaggtgt
7081 agtttcagga gaatgtggca aacaattcat ttgatcgaca taaatactca aaagtttgtc
7141 cttccagttt tccatcttat ttcaaagaat caaaatttta ttttccatca tacttttatg
7201 gcacctttct aataacaaat tacgtaacat agaaattcct ttttgaaatc atttcgtgtc
7261 acttattatg atactagata tatttttagac tttgatgatc tttaacatat tgatggaaat
7321 agactatata tgagagaatt tttttgcctt aacacaacca tttactaata tatgataatg
7381 gtcgtaaata tggcttgact actagcaaat atattatttt agcatcttgc cttagttcca
7441 ttttaatggc tagtattctc ttaattaaca aattgtttca agctttatca tatttgaaaa
7501 tattggctaa aattattggg tccttagaaa tcccaaattg aactggttca ctcatcactg
7561 aggaaaaaaaa aatcaaattt tctctgataa gtagttatgc tccaaatgaa atttattgga
7621 tggatccaat aaataaagga tccatccwat aaataaagaa cttaaataca caaagataaa
7681 aaaatatcca agtaccaaaa tttgctggct cttagttttg aatggctact caaggaaaagg
7741 gtagaagggt taaaggtaaa acatgatgcg taactcgtca caataagccc ttgcttagaa
7801 ttaatatattt cttttatgta taaatacgtt gatgtttcat gtctttttaa aacttgtaga
7861 ataaaagatt taatcttcaa atctatttct tcactgtggg aacatgggtt actggttgca
7921 aaataatttt tacgtacttg tctgaaaagt tggaaaagg ttacctaaact agacaataac
7981 tttgacactt cgaaggcttt aatgtgtcct atttcatcaa caggaagtcc gagaggcaaa
8041 tagaggaaca cca
```

4/25

FIGURE 1B

MKLKLSNWCWLSSAVLAAYGFLVVANNETEEIKDEAAKDACPVRLESRGKCEEVGGCP
YQVNLPPLTLQLPKQFGRIEEVFKEVQNLKEIVNSLKKTCQDCRLQADDNRDPGRNGL
LSPGTGAPGEADDSRVRELENEVNKLSSDLKNAKEEIDGLQGRLEKLSLVNMNNIENY
VDNKVANLTFAVNSLDGKCSSRCPSQEQIQSRPVQHLLYKDCSEYYTIGKRSSEIYRV
TPDPKNSSFEVYCDMETMGGGWTVLQARLDGSTNFTRTWRDYKVGFGNLRREFWLGNL
KIHLLTKSKDMILRIDLEDFNGIKLYALYDHFYVANEFKYLRLHIGNYNGTAGDALRF
SKHYNHDMKYFTTPDRDNDRYPSGNCGLYYSSGWWFDACLSANLNGKYYNQKYRGVRN
GIFWGTWPGISEAQPGGYRSSFKKMMIRPKYFKP

5/25

FIGURE 2

FGL2 Promoter Alignment using ClustalW 1.8:

```

Pig      1  CCCTCTCCCTGCCCTCA1CCCTCTCAGGAGAAAAGCTG2GA3ACCCTAAAGA-GAAAGTTT
Human    1  -----TGCCTTCAGCCTCTCAAGA-GAAAGTTA4
Mouse    1  -----GAA5AGTCTT6GGAAATCTGGTT7CAGA-TATAAATATGAA8ACTC9
consensus 1  ag tct aggaga tGcttgaAgactcTaAaGA GAaAgtTa

Pig      60  GACAAGT10TGAACAGTCATGCT11CAGACATGTGT-GG12GCAAG13T14GTGATACAGCAAGT
Human    28  GAA15AACT16TTATCATTAATGCT-----ACATGTTT-TGA17CAAG---CTGATATACCAAGT
Mouse    46  GACATGGTGGTACACACCTGTG18ATCTCT19TGTTTAGGAGG20CAG21GGCAGAGAGATCA22GA
consensus 61  GAcAagtgtgaaCA tcaTGctg acaTGTTt gGagcaAGg actGATa A CAaGt

Pig      119  GGCACACAGTCCAGGTAGAGG23ATGT24CGCTG25AG26CAGAAAGCAC-AGAGAG27GGGACCA
Human    80  GGCCAGAG28GCAGGTAGAG29GACCAGCG-TG30AG31CAGAAAGCA--AGAG32CCCGCCTC33
Mouse    106  GTT-CA-AG34CCAGCCTGAGCTACT35TGAGACCCAGTCT36AAAT37AAATAAGAGAT38-GATTA
consensus 121  Ggc CA AGacCAGgtaGAgggAc tgcG tgaAGgCagAAagca AGAGa g Gacta

Pig      178  CCAGG-CTGCCAGT39GG40AAG41GAAGCAAAGATGCTGGAC42CAAAA43--GAA--TCAG44AA
Human    137  CCAGGGCT45CCCTGCAG46AAAG47AAAGCAAAGATGCTGTAG48CAAGA49---GAAGTTCAG50GA
Mouse    163  CAG51AG--TGCCTTTA52CTAGTACAG53GAAAGAATTGG54CTTTATCT55TGTTCAGTTACGCT
consensus 181  CcagG cTgCCtgtaggaAGgaaaGgcAAAGAtgcTGga acAaaaa gaAgtTcaGaa

Pig      233  -AGAGAG56GGGAG57TAGTTCAAAGACTCACATT58C-----AGC59GCCGTGGAAG--GACAGT60C-
Human    194  CAGACACTGGC61TAGCTCAAAGATTACATTT62-----AGCAGCTGTGGAAGATGACAGTA-
Mouse    221  GA63ATA64ATTTT-TA65GTAA66TA67AAATCCCTTTT68ATAAGAA69CCCTT70AT71AG--GTCAGTAT
consensus 241  AgA Agtgg gTAg TcAaAgA TCaCaTTtg AGcagCcgTggaAG GaCAGTa

Pig      285  ---CAATCACA72AAAAATAGT73GAA74GGCAAAGGAGGA75GCTGCC--TTT-----GTAAG76GC
Human    250  ---CAATTACCAAAAT77CTGAAG78GGCAAAGGAGGC79GCT80CTGGTTT81TG--ATGAAAG82C
Mouse    278  GCA83CAATGA84ACTTA85AGAGAGACCCCA86CTCCTGA-GCTGAGT87GATGGGGAAGGACAGCC
consensus 301  CAAT AccaaAAtag GAAaggCAaaggagGagGCTgc gtTt g a GaaAGGc

Pig      334  A-----GTGATGTGCTTTT88-ATGTGTTTCT--GTCATCTAGACATT89TGTC-TGCACTA
Human    305  A-----ATTATGTCCTTTT90-AA91TGGGTCTTAGACATT92TAGACATT93AT--TACACTA
Mouse    337  ACTGCCTGTGATGTGTGAGT94GACCTGCTTCAAGTGT95TTTAA96CCACT97ACGATTACA-TA
consensus 361  A gTgATGTgctttt A gTG tTct aGtcaTtTAgacATaatg TaCAcTA

Pig      384  TGCTGTAGTCAAAGG98ATAGAAAGTAGCACTTTTTTCTCTATCAGTTTTCTTCTGATCT-
Human    356  TGCT99CA100GACAAAGG101ATAGAAAGTAGCACTTTTTTCTCCAC102TAGTTTTCTTCTCTTTT

```

6/25

FIGURE 2 (cont'd)

Mouse 396 GCCTGCACAGTCAGG---AGAAAACAGCCGTATT--CTCTCCAGTTCTCTTCCCTTTTA
 consensus 421 tgCTGcagacaaaAGGgatAGAAAgTAGCacTtTtTtCTctaccAGTTtTCTTctctTtT

Pig 443 CAAATAGATGAAACAAA-GTCTACTGCAAGAGCAGAAAAGCTGAACTTCGTTACATTT
 Human 416 CAAATAGATGAAACAAAAGTCAACTGCAATAGTCAGAAA--GCTGTACTTTGTTACACTT
 Mouse 451 CAAACAGATGAAAGACA-CACACAGAGGAATCCATTTAAASAGCGGACCTTTGTTCTGATT
 consensus 481 CAAatAGATGAaacAaa gtCaactgcAAtagggcagAAaAaGcTGaaCTTtGTTaca TT

Pig 502 AAAAA---TTGTAA--GTGCTGAGAGTCTGTCTGAAAGCCCAATGAGAAGAAA--ATAC
 Human 474 AGAAAGC--TTCTAAAGGTGCTTAAGATTTCACCTGAAAGTCCAACGTAAGAAA--ATAC
 Mouse 510 AGGCGCAATTTTAA--GTCTTAAGAGTTCA-CACAAAGTCTACCTTCAAAAAGAAAAC
 consensus 541 Agaaac TT TAA GTgCtTaAGAgTtca CtgAAAGtCcAacgtgaAgAAA Atac

Pig 554 AGGATTCCCTAATGCCCCCTTCCAGAAAGGAAAAAGAACCATTTCCATTTCTGCAATATTT
 Human 530 AGGCTCCCCAATGCCCCATTCTAGAAAGGAAAAAGAACCATTTTCATTTTGTAACTTTT
 Mouse 567 AGGTTCCCAAA--C-----TAGGAGGAAAACAGAAATCATTTCCATTTTGTACATTT
 consensus 601 AGG TcCC AAtgCccc ttctAggaAGGAAAaAGaAcCATTTcCATTTTaGtaAcaTTT

Pig 614 CTGTTCTTTGACACATCCGGATAATTAGCACATTATTTTATCTTTAAAACTCTTGC
 Human 590 CTGTTCTATAG-ACAGTTGGATAACTAGCTC-TTCTTTTATCTTTAAAACTGTTTT
 Mouse 618 -----AGTG-----GG--AAGAAGCTCACAACATTTAGACGTTCCAACTCTTTC
 consensus 661 ctgttc attg acaat GGatAA tAGCtCattaattTTTAtcttTaaaAACTcTTtc

Pig 674 CCCCACTGTGGAGTTAAGTACA----ATGGAATGATTCATTTT-ACGTATA----ATTAT
 Human 648 TCCA---GTGAGTTACGTATA----ATTATTTCTTCAGCCTAGTATACCAATTAC
 Mouse 661 CCCCACTAGTGGACC-AAGTATATAATATGGTATCTTTTGGCCTGTATTACA-ACTAT
 consensus 721 cCCa GTGgAgttAaGTAtA ATggtaTg TTcaagcg aaGTATa ca AtTat

Pig 725 TTTA-AAACCAAGGTTCTCTTGTGCTTTTAAAAAATAAACGATGA--GTGAAACGTG-
 Human 701 TTTAGAAATCAAGACTTTTCTTTCTTC-ATAAAATACATTATGAAAGTGAATCTTG-
 Mouse 719 TTTTAAACAAAGACTTTCTTGTGCTTTTACTAAAA--ACCCAGACGGTGAATCTTGA
 consensus 781 TTTa AAAcgcAAGacTtTtCTTgTgCTTt atAAAAta Ac atGA aGTGAATcTtG

Pig 781 -TTGAATGTGTCCTCTGAGTACAGGAATTCAAAGCGGATTATTTGGATTGCGGATCAG
 Human 759 -TTGCTGTGTTCATTGACTATAATAATTTCATATGCATATTATTTCTATTGAGAGTAAG
 Mouse 776 ATACAATGCGTGGCACCCACGGCAGGCATTCTATTGTGCATAGTTTGTACTGACAGGAA
 consensus 841 TtgaatGtGTgcctctgActacAggaATTccAatGcg ATtaTTT gAtTGagagtaag

7/25

FIGURE 2 (cont'd)

Pig 840 TGACAGTTTTTTGGCAAGCCTAGTTGGATGAGGACACTCTCCTTTTCCTCTGCGTTTGTGA
 Human 818 TTACAGTTTTTTGGCAA⁸CTGCGTTTGATGAGG⁸CTATCTCCTCTTCCTGTGCGTTTCT⁸AA
 Mouse 836 TGACAGCATTTGGCT²³GGCTGCGCTTGCTGAGGACCC²³TCTCCTCCTG-TGTG-GCGTCTGA
 consensus 901 TgACAGtttTTGGCaagCtgcGtTtGaTGAGGaC gTCTCCTctTccTgTgcGttTcTgA

Pig 900 ACCTTGTGATGAAA⁸TGCTCCCGCCCTTTTCTG⁸GAACA--GAAAGCCTGACTCAGGCAG
 Human 878 AACTTGTGATGCAAAC⁸GCTCCC⁸CCCTTTCTGGGAACACAGAAAGCCTGACTCAGGCAG
 Mouse 894 GACT-GTGATGCAAATGCG²³CCCGCCCTTTTCTGGGAAC²³CAGAA²³GCCTGAG²³TCAGGC²³G
 consensus 961 aaCTtGTGATGcAAatGCTCCCgCCCTTTtCTGgGAACacaGAAaGCCTGAcTCAGGCaG

Pig 958 GCAGCTGCTGCTCTTAA⁸AGCTCGAGCCGGCAGCCTC⁸CCCTGCTGGGGTGAGC⁸CCAC
 Human 938 ----CTGCCGCTATTAAAGCAGCTCCAGCCCTGCGCACTCCCTGCTGGGGTGAGC⁸GCAC
 Mouse 953 ----CGGTGGCTATTAAAGC²³CTGG-----TCAG-----GCTGGGCTG--CCGCAC
 consensus 1021 CtGc GCTaTTAAAGCagCTcgagcc tcaGc ccctGCTGGGgTGagCggCAC

Pig 1018 CGCA⁸GAGATGAAGCTGAAGCTG--
 Human 994 TGTAAAGATGAAGCTG--GCT⁸AAC
 Mouse 994 TGCAAG²³GATGA²³GCCTT--CCTG²³ST
 consensus 1081 tGcAaaGATGAaGCTg gCTga

Box = ATG start codon

8/25

FIGURE 3

FGL2 Protein Alignment

FGL2 Protein Alignment using ClustalW 1.8:

```

Pig      1 MKKIKLSNWCWLSSAVLAAYGFLVVANNETEEIKDEAAKDACPVRLSRGKCEEVGGCPYQ
Human    1 --MKLANWYWLSSAVLATYGFLLVANNETEEIKDERAKDVCVRLSRGKCEEAGECPYQ
Mouse    1 --MYLPGWLWLSSAVLAACRAVEEHN-LTEGHEEDASAQAACPARLEGSCEGS-QCPAQ
consensus 1 mkL nW WLSSAVLAaygflvvaNneTEeikDe AkdaCPvRLSsrGkCEe g CPyQ

```

```

Pig      61 VNLPLPTIQLPKQFGRIEEVFKEVQNLKEIVNSLKKLCQDCQLQADDNRDPGRNGLLSPG
Human    59 VNLPLPTIQLPKQFSRIEEVFKEVQNLKEIVNSLKKSCQDCKLQADDNDPGRNGLLPS
Mouse    57 VNLPLPTIQLPKQSGVEEVLFKEVRTLKEAVSLKKSCQDCKLQADDHRDPGCGNGNGAE
consensus 61 vsLpPLtiQLPkQfgriEEVFKEVqnLKEiVnSLKKsCQDCKLQADDnrDPGrNGll p

```

```

Pig      121 TGAPGEADDSRVRELENEVNKLSSSLKNAKEEIDGLQGRLEKLSLVNMNNIENYVDNKVA
Human    119 TGAPGEVGDNRVRELESEVNKLSSSELKNAKEEIVLHGRLEKLNLVNMNNIENYVDSKVA
Mouse    117 T-----ADSRVQELSESVNKLSSSELKNAKEEIDGLQGRLETLHLVNMNNIENYVDNKVA
consensus 121 TgapgeadDsRVrELEseVNKLSSeLKNAKeeIngLqGRLEkL LVNMNNIENYVDnKVA

```

```

Pig      181 NLTFVNSLDGKCSKCPSQEQIQSRPVQHLYKDCSYYYTIGKRSSSEYRVTPDPKNSS
Human    179 NLTFVNSLDGKCS-KCPSQEQIQSRPVQHLYKDCSDYYAIGKRSSSEYRVTPDPKNSS
Mouse    172 NLTFVNSLDGKCS-KCPSQEHMQSPVQHLYKDCSDHYVIGKRSSGAYRVTPDPKHSS
consensus 181 NLTFvVNSLDGKCS kCPSQEqiQsrPVQHLYKDCSdyY iGKRSSe YRVTPDpkNSS

```

```

Pig      241 FEVYCDMETMGGGWTVLQARLDGSTNFTRTWEDYKVGFGNLRREFWLGNDKIHLLTKSKD
Human    238 FEVYCDMETMGGGWTVLQARLDGSTNFTRTWODYKAGFGNLRREFWLGNDKIHLLTKSKE
Mouse    231 FEVYCDMETMGGGWTVLQARLDGSTNFTREWDYKAGFGNLEREFWLGNDKIHLLTKSKE
consensus 241 FEVYCDMETMGGGWTVLQARLDGSTNFTRTWrDYKaGFGNLRREFWLGNDKIHLLTKSke

```

```

Pig      301 MILRIDLEDFNGIKLYALYDHFYVANEFLLKYRLHIGNYNGTAGDALRFSKHYNHDLKkFFT
Human    298 MILRIDLEDFNGIKLYALYDQFYVANEFLLKYRLHIGNYNGTAGDALRFNKHYNHDLKkFFT
Mouse    291 MILRIDLEDFNGIKLYALYDQFYVANEFLLKYRLHIGNYNGTAGDALRFSKHYNHDLKkFFT
consensus 301 MILRIDLEDFNGi LYALYDqFYVANEFLLKYRLHiGNYNGTaGDALRFskHYNHDLkfft

```

```

Pig      361 TPD RDND RYPSGNCGLYSSGWFFDACLSANLNGKYYNQKYRGVRNGIFWGTWPGISEAQ
Human    358 TPD RDND RYPSGNCGLYSSGWFFDACLSANLNGKYHHQKYRGVRNGIFWGTWPGISEAH
Mouse    351 TPD RDND RYPSGNCGLYSSGWFFDACLSANLNGKYHHQKYRGVRNGIFWGTWPGINGAQ
consensus 361 TPD rDND RYPSGNCGLYSSGWFFDaCLSANLNGKYyhQKYrGVRNGIFWGTWPGiseAq

```

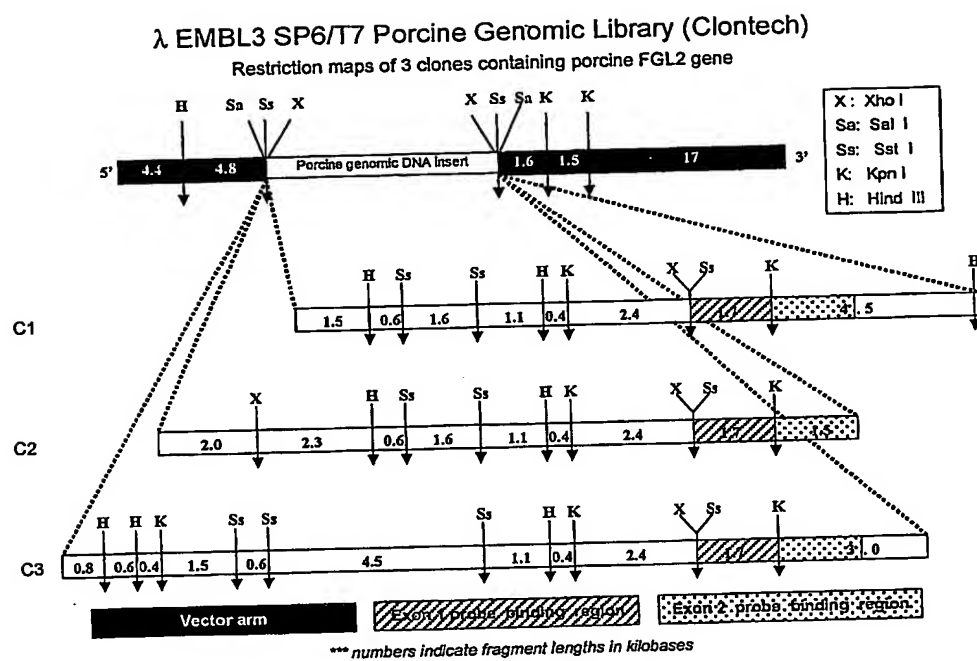
```

Pig      421 PGGYKSSFKEAKMMIRPKYFKP
Human    418 PGGYKSSFKEAKMMIRPKHFKP
Mouse    411 PGGYKSSFKEAKMMIRPKNFKP
consensus 421 PGGYkSSFKeAKMMIRPK FKP

```


9/25

FIGURE 4

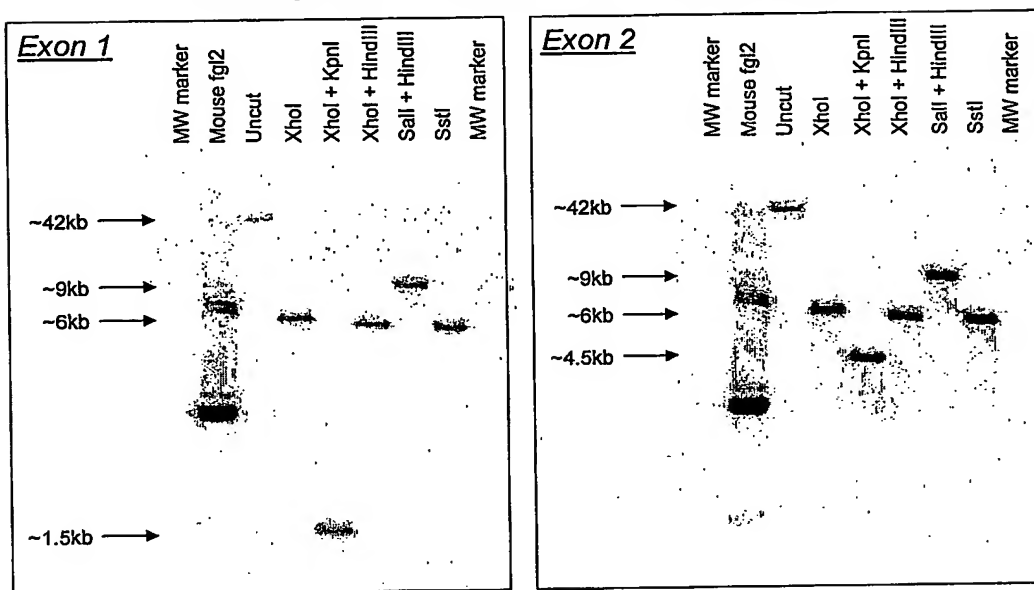


10/25

FIGURE 5

λ EMBL3 SP6/T7 Porcine Genomic Library "Clone 1"

*Southern blot of restriction fragments using
mouse fgl2 exon 1 (161bp) and exon 2 (659bp) probes*

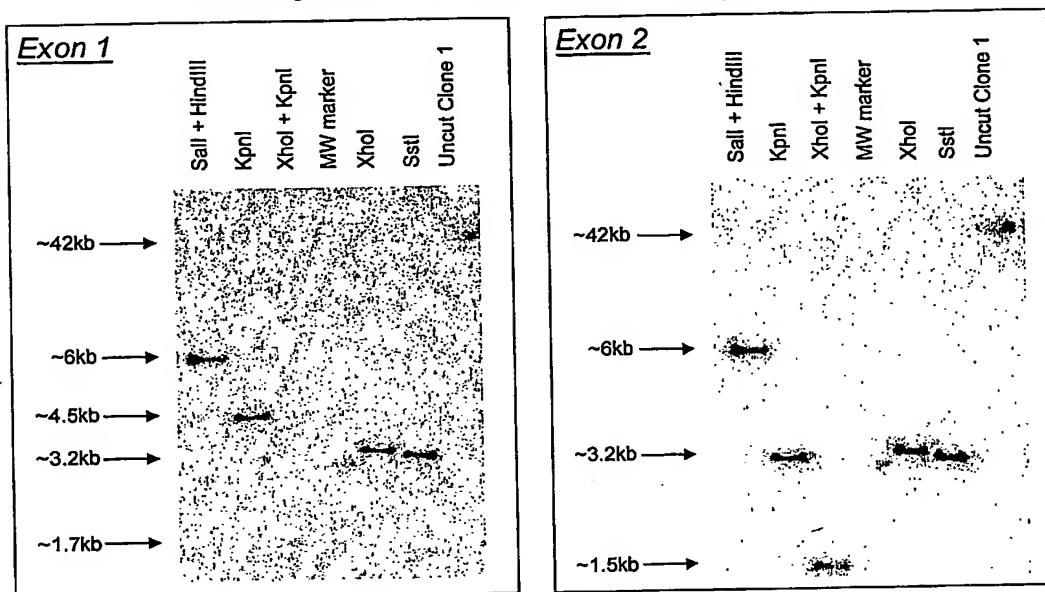


11/25

FIGURE 6

λ EMBL3 SP6/T7 Porcine Genomic Library "Clone 2"

*Southern blot of restriction fragments using
mouse fgl2 exon 1 (161bp) and exon 2 (659bp) probes*

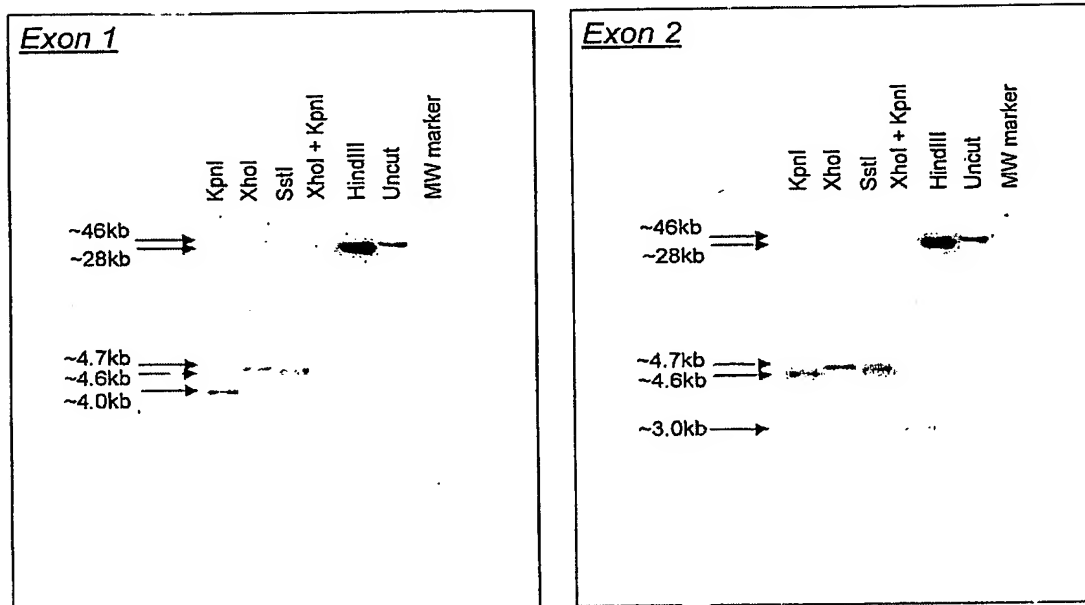


12/25

FIGURE 7

λ EMBL3 SP6/T7 Porcine Genomic Library "Clone 3"

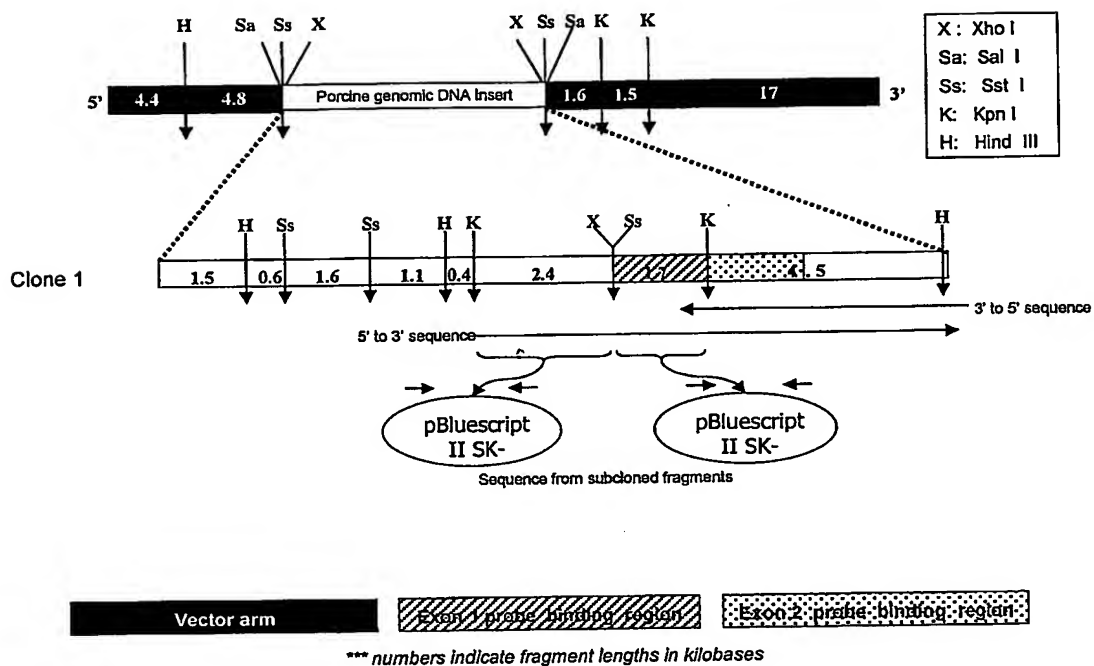
*Southern blot of restriction fragments using
mouse fgl2 exon 1 (161bp) and exon 2 (659bp) probes*



13/25

FIGURE 8

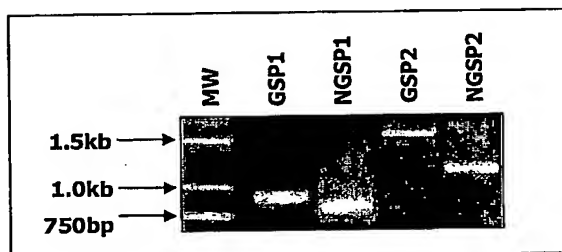
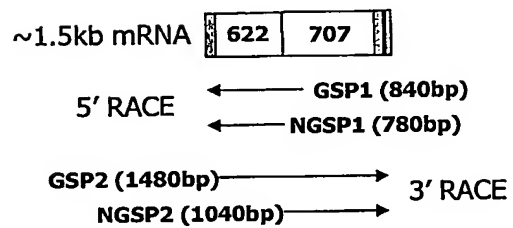
Sequencing Clone 1



14/25

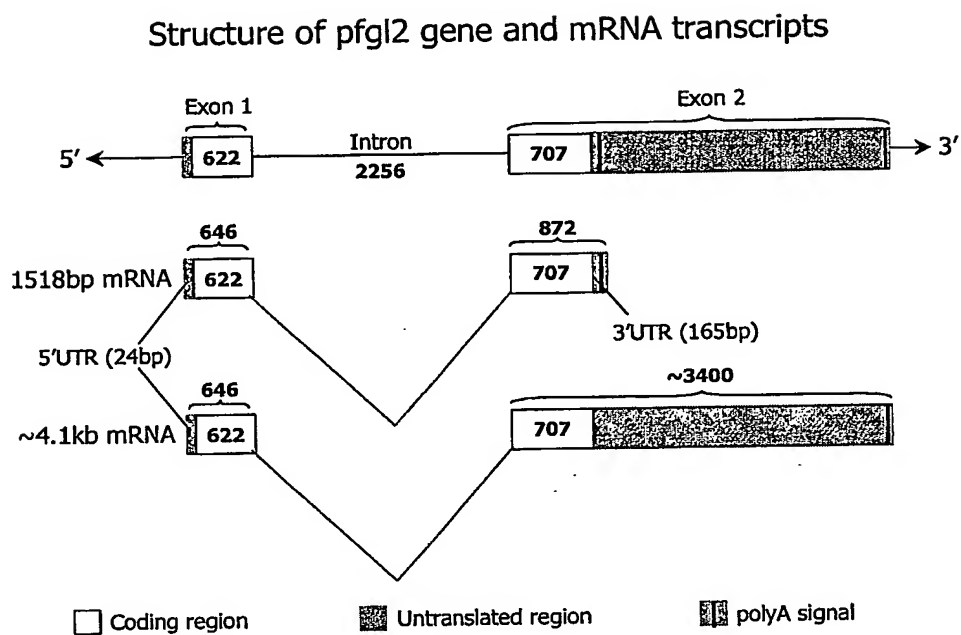
FIGURE 9

5' and 3' RACE



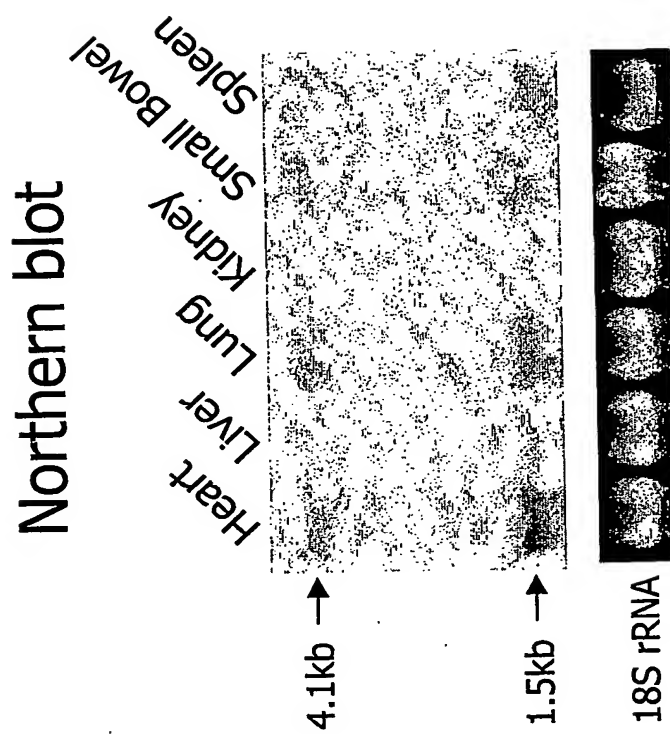
15/25

FIGURE 10

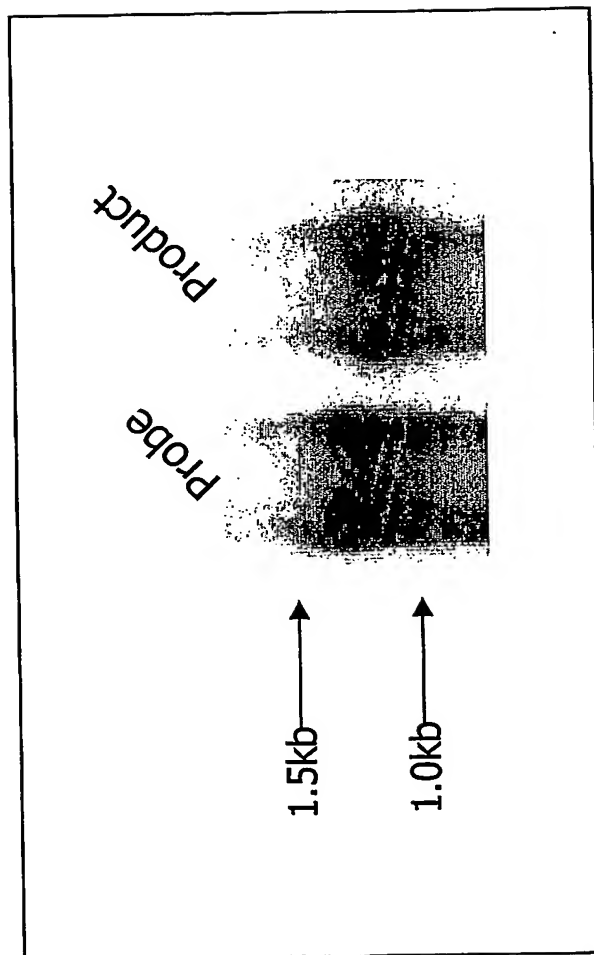
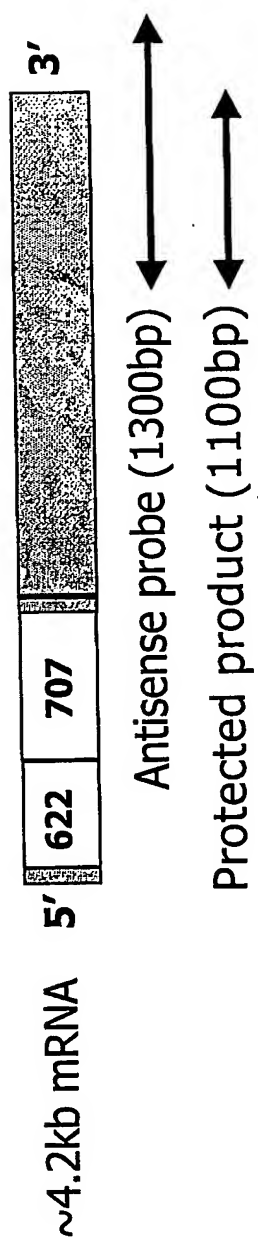


16/25

FIGURE 11
Fgl2 mRNA in porcine tissues:

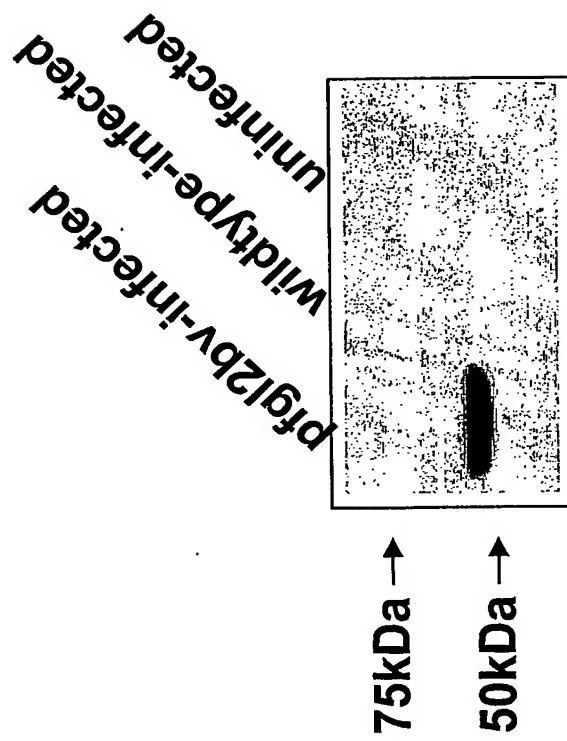


17/25

FIGURE 12**Ribonuclease Protection Assay**

18/25

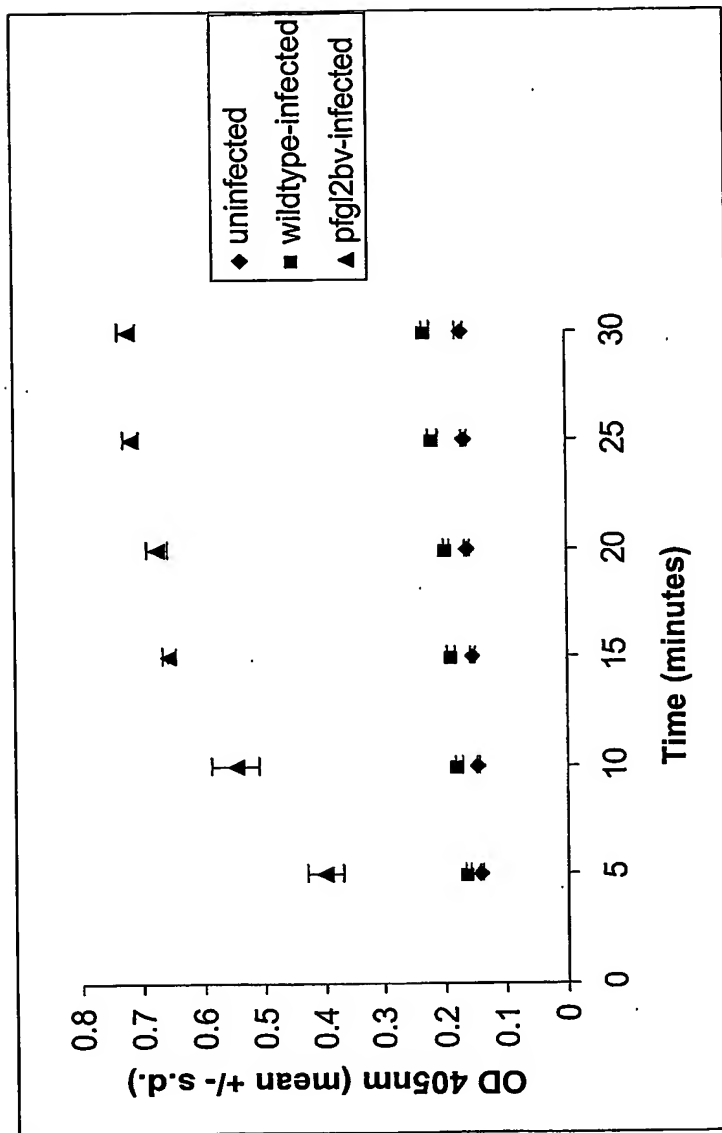
FIGURE 13
Expression of recombinant pfgl2 protein
in *High Five* cell lysates



- lysates from 3×10^4 cells/lane
- western blot probed with anti-His Ab

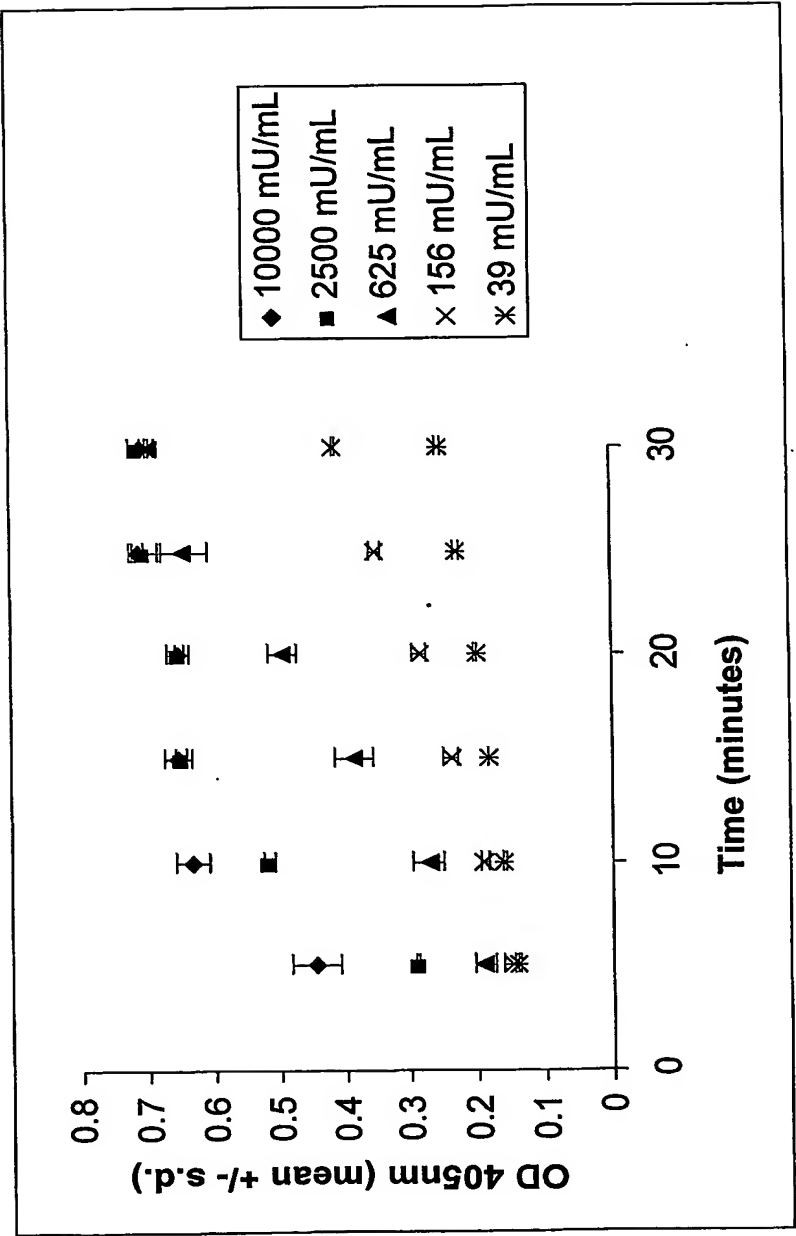
19/25

FIGURE 14
Generation of thrombin from prothrombin by *High Five* cell lysates
chromogenic assay



20/25

FIGURE 15
Thrombin standard curves for chromogenic assay



21/25

FIGURE 16

Induction of pfgl2 mRNA in PAEC

Northern blot

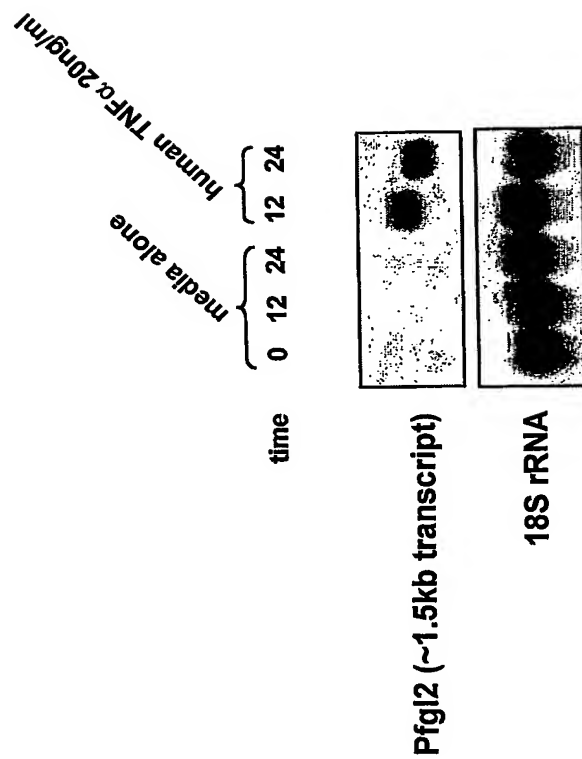
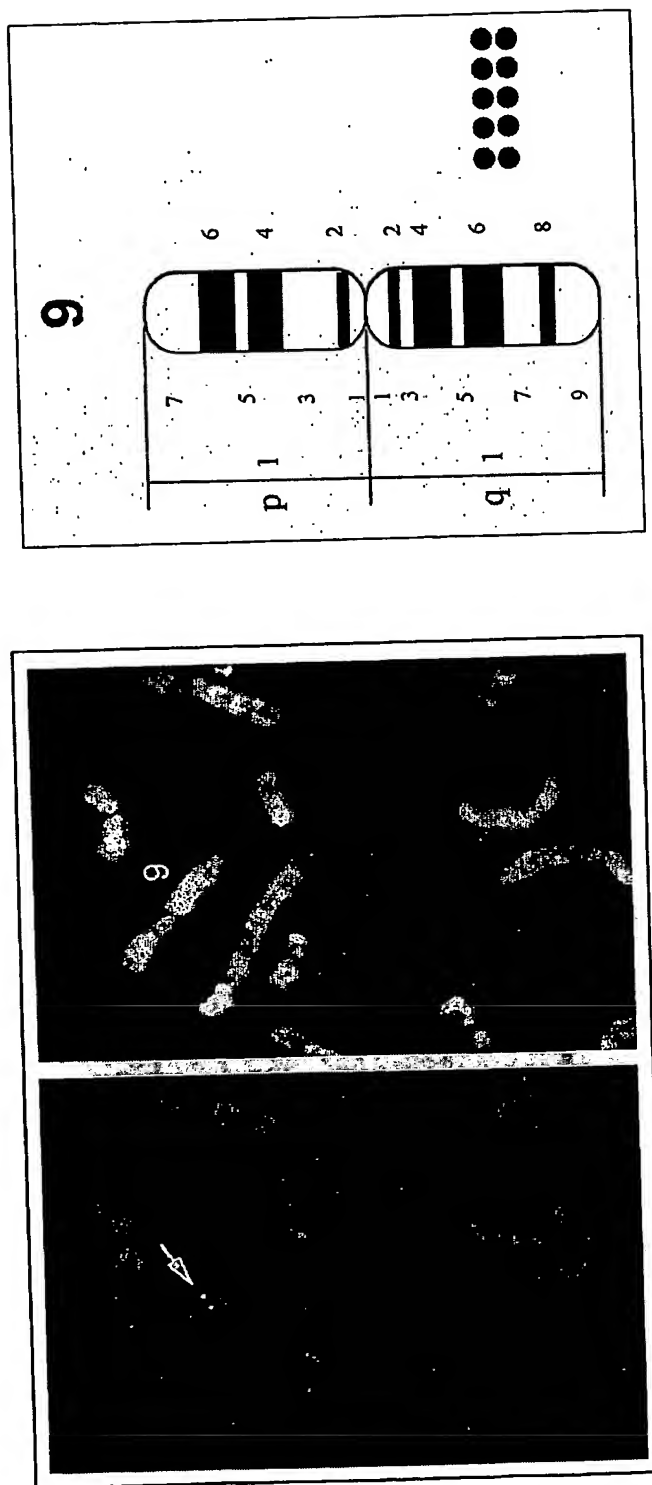


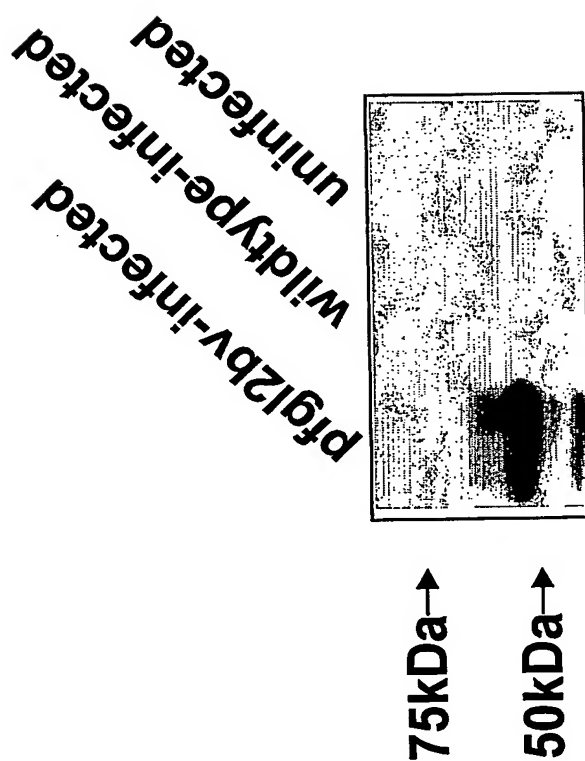
FIGURE 17
Chromosomal localization of porcine fgl2 gene by FISH



23/25

FIGURE 18

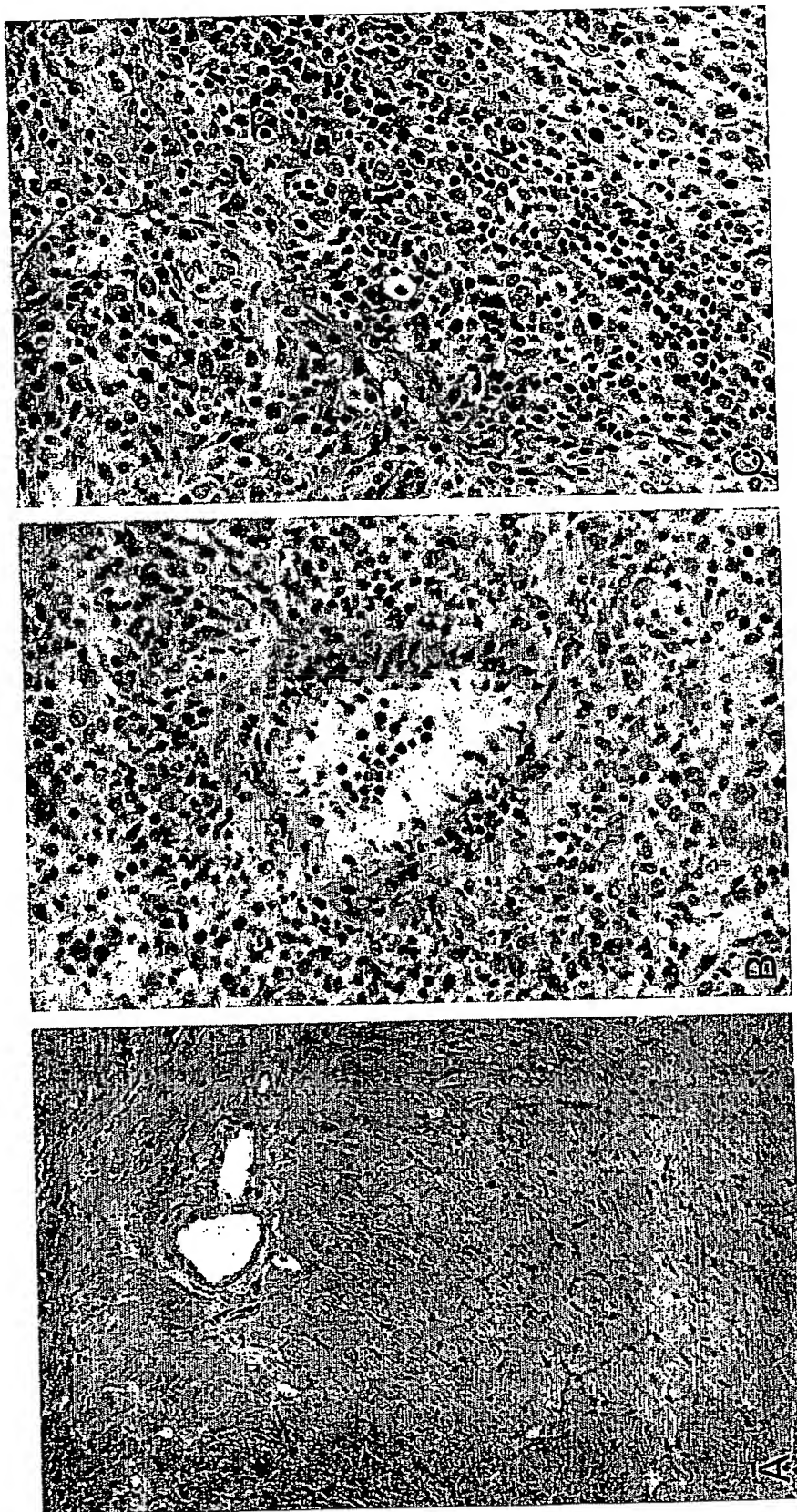
Detection of recombinant pfagl2 protein by polyclonal rabbit anti-pfagl2 peptide antibodies



- western blot of lysates from 3×10^4 *High Five* cells per lane using IgG purified from rabbit GN9179

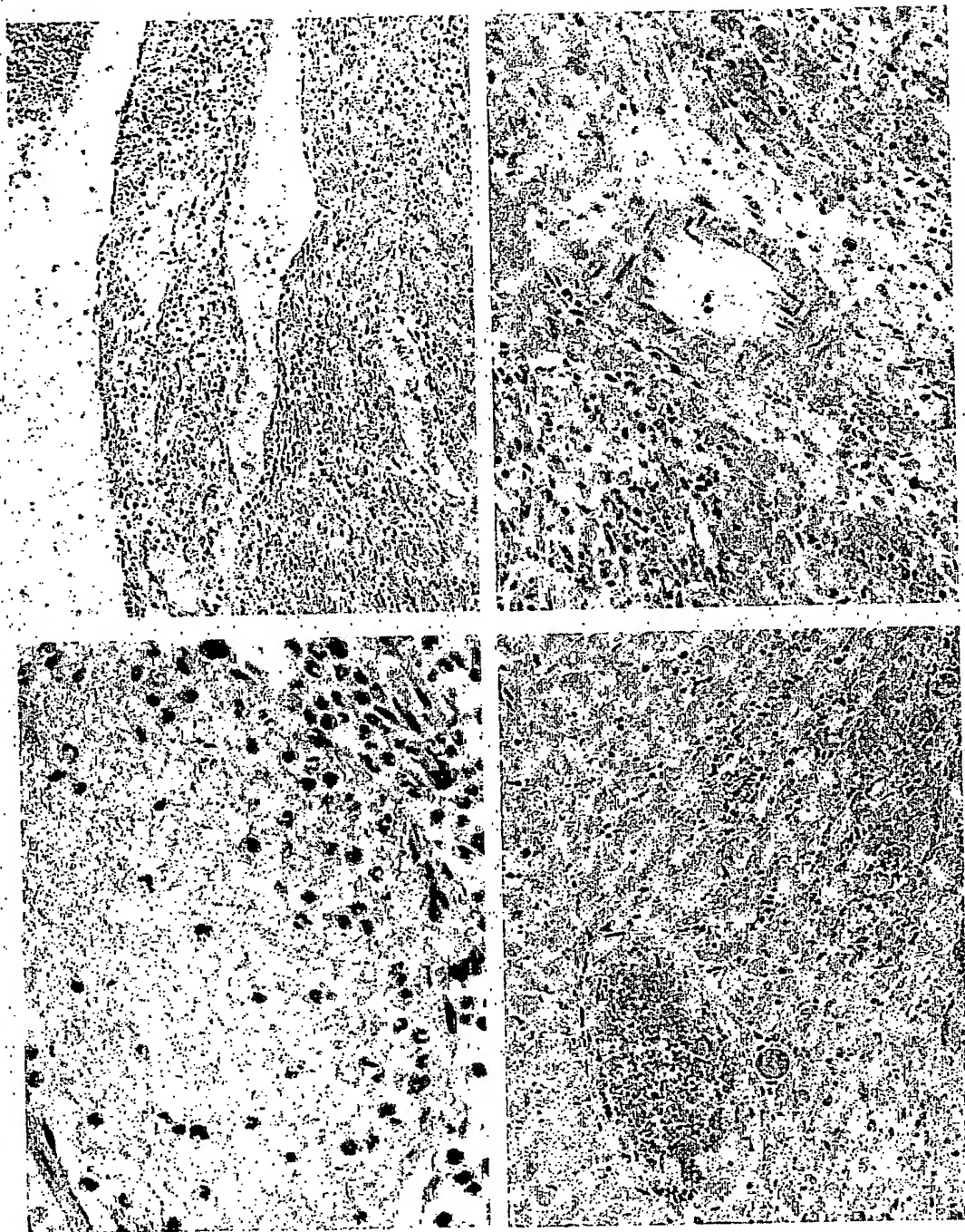
24/25

FIGURE 19



25/25

FIGURE 20



**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

☐ **BLACK BORDERS**

☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**

☐ **FADED TEXT OR DRAWING**

☒ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**

☐ **SKEWED/SLANTED IMAGES**

☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**

☐ **GRAY SCALE DOCUMENTS**

☒ **LINES OR MARKS ON ORIGINAL DOCUMENT**

☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**

☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.